

Claims

1. Machine tool for machining workpieces with a workpiece holding device which comprises a support (18), a workpiece spindle headstock (20) mounted on a first side (27) of the support and a tailstock, characterised in that the tailstock (23) is movably mounted on a second side (28) of the support which is different from the first side.
2. Machine tool according to claim 1, characterised in that a measuring device (29) is fitted to the support (18) between the workpiece spindle headstock (20) and the tailstock (23) to acquire measured variables while machining a workpiece (26).
3. Machine tool according to claim 2, characterised by movable protective means (30) for protecting the measuring device (29).
4. Machine tool according to any one of claims 1 to 3, characterised in that the support (18) can be pivoted about a pivot axis (19).
5. Machine tool according to any one of claims 1 to 4, characterised in that the angle (α) between the vertical and the second side (28) of the support (18) on which the tailstock (23) is fitted is greater than 0 degrees.
6. Machine tool according to any one of claims 1 to 5 characterised in that it comprises a turning device (4) for cutting a workpiece (26) and/or at least one grinding device (5, 6, 41).

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7. Machine tool according to claim 6, characterised in that the grinding device (6, 41) comprises a grinding tool (12, 42) which can rotate about an axis of rotation which is
5 disposed at an angle to the workpiece axis (22).

8. Machine tool according to either of claims 6 and 7, characterised in that the grinding device (5, 6, 41) and/or the turning device (4) can travel along at least two axes of
10 travel (X, Z).

9. Machine tool according to claim 8, characterised in that the grinding device and the turning device can travel independently of one another along the two axes of travel
15 (X, Z).

10. Machine tool according to either of claims 8 and 9, characterised in that the first axis of travel (Z) is oriented substantially horizontally, and that the angle (β)
20 between the second axis of travel (X) and the vertical is greater than 0 degrees.

11. Machine tool according to any one of claims 1 to 10, characterised by a workpiece gripper device (39) for taking
25 up at least two workpieces.

12. Machine tool according to any one of claims 1 to 11, characterised by a machine bed (1, 37), wherein the latter and the workpiece holding device (18, 20, 23) comprise faces
30 (1a, 27, 28, 37a) which are inclined with respect to the horizontal for removing material arising during machining in the downward direction.

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13. Machine tool according to any one of claims 1 to 12, characterised in that the workpiece holding device (18, 20, 23) is fastened to brackets (37) at a spacing from the machine bed (1).

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14. Machine tool according to claim 13, characterised in that the machine bed (1) is formed as an inclined bed (1a), wherein the brackets (37) have bevelled faces (37a).

10 15. Machine tool according to any one of claims 1 to 14, characterised by a collecting device (35, 36) for collecting and/or carrying away falling material.

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